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ABSTRACT

A waste paper recycling process relates to the treatment of a mixture of waste paper containing non-cellulosic contraries and printing inks, in order to release the contraries from the fibers and further to separate them from the stock in order to produce re-usable pulp for the production of paper and board.

The invention has to do with new and useful improvements in methods for first removing the non-ink contraries from the fibrous mass and second releasing and then removing the ink particles from the said fibrous mass.

The invention is directed to the treatment of the fiber slurry produced during the ink separation stage, after the ink releasing stage has been applied. One aim of the process is to allow both the use of the fibers and the mineral fillers contained in that slurry, for pulp and board making, and the use the solids-free water contained in the same slurry as the washing liquid in the previous ink-separation treatment, thus closing the fibers and the water circuits.

This process includes chemical and thermo-mechanical treatments, starting under alkaline conditions, which may become neutral at the end of the process.